

fine of yellow and orange, and these thickneses will be $G\mu$, $G\nu$, $G\xi$, $G\phi$, $G\gamma$. And this being known, it is easy to determine what thickness of Air is represented by $G\phi$, or by any other distance of the ruler from A H.

But further, since by the 10th Observation the thickness of Air was to the thickness of Water, which between the same Glasses exhibited the same Colour, as 4 to 3, and by the 21th Observation the Colours of thin bodies are not varied by varying the ambient medium; the thickness of a Bubble of Water, exhibiting any Colour, will be $\frac{3}{4}$ of the thickness of Air producing the same Colour. And so according to the same 10th and 21th Observations the thickness of a plate of Glass, whose refraction of the mean refrangible ray, is measured by the proportion of the Sines 31 to 20, may be $\frac{20}{31}$ of the thickness of Air producing the same Colours; and the like of other mediums. I do not affirm, that this proportion of 20 to 31, holds in all the rays; for the Sines of other sorts of rays have other proportions. But the differences of those proportions are so little that I do not here consider them. On these Grounds I have composed the following Table, wherein the thickness of Air, Water, and Glass, at which each Colour is most intense and specifick, is expressed in parts of an Inch divided into Ten hundred thousand equal parts.

The thickness of coloured Plates and Particles of

	Air.	Water.	Glass.
Their Colours of the first Order,	Very Black	$\frac{1}{2}$	$\frac{3}{8}$
	Black	$\frac{1}{4}$	$\frac{3}{16}$
	Beginning of Black	2	$1\frac{1}{2}$
	Blue	$2\frac{2}{3}$	$1\frac{1}{3}$
	White	$5\frac{1}{4}$	$3\frac{1}{8}$
	Yellow	$7\frac{1}{2}$	$4\frac{1}{2}$
	Orange	8	$5\frac{1}{2}$
	Red	9	$6\frac{1}{4}$
			$5\frac{1}{2}$
Of the second Order,	Violet	$11\frac{1}{2}$	$8\frac{1}{8}$
	Indico	$12\frac{1}{2}$	$9\frac{1}{8}$
	Blue	14	$10\frac{1}{2}$
	Green	$15\frac{1}{8}$	$11\frac{1}{3}$
	Yellow	$16\frac{2}{3}$	$12\frac{1}{3}$
	Orange	$17\frac{2}{3}$	13
	Bright Red	$18\frac{1}{3}$	$13\frac{1}{4}$
	Scarlet	$19\frac{1}{3}$	$14\frac{1}{4}$
			$12\frac{1}{2}$
Of the third Order,	Purple	21	$15\frac{1}{4}$
	Indico	$22\frac{1}{10}$	$16\frac{1}{5}$
	Blue	$23\frac{1}{3}$	$17\frac{1}{10}$
	Green	$25\frac{1}{3}$	$18\frac{2}{5}$
	Yellow	$27\frac{1}{3}$	$20\frac{1}{3}$
	Red	29	$21\frac{1}{4}$
	Bluish Red	32	24
			$20\frac{1}{3}$
			$22\frac{1}{3}$
Of the fourth Order,	Bluish Green	34	$25\frac{1}{2}$
	Green	$35\frac{1}{2}$	$26\frac{1}{2}$
	Yellowish Green	36	27
	Red	$40\frac{1}{2}$	$30\frac{1}{4}$
Of the fifth Order,	Greenish Blue	46	$34\frac{1}{2}$
	Red	$52\frac{1}{2}$	$39\frac{1}{2}$
Of the sixth Order,	Greenish Blue	$58\frac{1}{4}$	44
	Red	65	$48\frac{1}{4}$
Of the seventh Order,	Greenish Blue	71	$53\frac{1}{4}$
	Ruddy White	77	$57\frac{1}{4}$

Now